

**TRUNCATED PYRAMIDAL GOLF BALL POSITIONING DEVICE WITH INSERT**

**CROSS-REFERENCE TO RELATED PATENT APPLICATIONS**

**[0001]** Serial No. 10/461,624 filed June 13, 2003

**BACKGROUND OF THE INVENTION**

**Field of the Invention**

**[0002]** The present invention relates to an insert for a truncated pyramidal golf ball positioning device that takes the place otherwise filled by golf balls.

**Discussion of Related Art**

**[0003]** Positioning devices capable of stacking golf balls to form a pyramidal stack of golf balls are known from U.S. Patent No. 5,551,832 and U.S. Patent No. 5,595,312. The basic idea is to fill the interior with an inverted hopper having an pyramidal shape that is open at the inverted base, placing a tray to close the inverted base, flipping the closed pyramid shape, removing the hopper. What remains standing is a stack of golf balls that form a pyramidal shape on the tray.

**[0004]** While such positioning devices are suited for use at golf ball driving ranges, there are other uses for them. They may be used to contain golf balls in a pyramidal stack to be given as a gift to a golfer. If the hopper is transparent, one might display prized golf balls inside and place the positioning device in an area for display. Such uses have one thing in common: the interior of the positioning device need not necessarily be filled with golf balls. Indeed, considering the cost structure for golf balls, it would be advantageous to provide flexibility in the number of golf balls that need to be

included to fill the positioning device sufficiently to maintain the appearance of the golf balls being stacked in a pyramid when they are resting on the tray.

## SUMMARY OF THE INVENTION

**[0005]** One aspect of the invention relates to a spacer insert arranged to fill a void within a truncated pyramid stack of golf balls that may otherwise be filled by at least one golf ball. The spacer insert may be sized to take the place of one or more golf balls in the stack. The spacer insert may be hollow so that an item may be contained within its confines, such as a golf related item.

**[0006]** Another aspect of the invention resides in a positioning device that has a hopper, golf balls within the hopper and a spacer insert within the hopper. The golf balls form multiple layers of a pyramid stack. The spacer insert is within one of the layers of golf balls, thereby taking the place of golf balls that would otherwise be included to fill out the pyramid shape. The hopper has the shape of an inverted, truncated pyramid. When a tray closes the open base of the inverted, truncated pyramid and the hopper is flipped over, the golf balls are stacked in a shape of a truncated, pyramid, whether the spacer insert is kept in or not. The spacer insert may be hollow and accommodate golf tees or other golf related items. The golf ball pyramid stack may be upright on a tray, with its base layer in contact with an inner facing surface of an upstanding periphery of the tray and remain upright, preferably, whether or not the spacer insert remains in position filling the void in the pyramid stack.

## BRIEF DESCRIPTION OF THE DRAWING

[0007] For a better understanding of the present invention, reference is made to the following description and accompanying drawings, while the scope of the invention is set forth in the appended claims:

Fig. 1 is an isometric view of a positioning device in accordance with an embodiment of the invention.

Fig. 2 is a bottom view of Fig. 1.

Fig. 3 is an elevational view of two positioning devices of Fig. 1 stacked one atop the other.

Fig. 4 is an isometric view of a spacer.

## DETAILED DESCRIPTION OF THE INVENTION

[0008] Figs. 1-3 show a positioning device that includes a hopper 10 and a tray 12 that may be constructed in accordance with their counterparts found in US Patent No. 5,551,832 and US Patent No. 5,595,312, whose contents are incorporated herein by reference. The hopper 10 and tray 12 form a truncated pyramidal shape. Golf balls filling the interior are stacked to form a truncated pyramid. One or more golf balls, otherwise filling the interior, may be replaced by a spacer insert 14.

[0009] As shown in Fig. 4, the spacer insert 14 may be of solid or hollow construction and may have all flat surfaces. It may be constructed in accordance with either the spacer insert 14 or spacer insert 20 of US Serial No. 10/461,624, whose contents are incorporated by reference. If hollow, the spacer insert may have a lid hinged inside (hinge not shown) or slideably secured to an adjacent wall of the spacer

insert. This permits one or more items **30** to be placed into the spacer insert **14**, or removed from it. The items may be golfer's tees or other items pertaining to golf, although such items may as an alternative have nothing to do with golf.

[0010] The hopper may be made from transparent or translucent material, because the inside may be viewed from outside. Thus, prized golf balls, for instance, may be displayed prominently within the hopper. The inside of the truncated pyramidal stack, which is not visible from the outside when the hopper is upright, may have the spacer insert. However, the spacer insert **14** may be removed and still the golf balls will remain in their stacked, truncated pyramidal shape.

[0011] The golf ball positioning device may include the tray **12** having an upstanding periphery **20** as shown in Fig. 3. The truncated pyramidal stack of golf balls **16** are stacked upright on the tray **12**. The truncated pyramidal stack of golf balls **16** include a plurality of layers of golf balls. These layers include a base layer **22** and a top layer **24** atop the base layer **22**. The base layer **22** fits within the confines of the upright periphery **20** and contacts an inner facing surface of the upstanding periphery. The base layer **22** may have a void **26** between the tray and at least some of the golf balls of the top layer **24** that is free of any golf balls, the void being of a dimension such that a volume of one of the golf balls may be accommodated in the void. That void may be where the spacer insert **14** was located before its removal from the confines of the hopper **10**. Alternatively, the spacer insert **14** may be left within the hopper to rest on the tray **12** and fill in this void on the tray.

[0012] The spacer insert 14 is sized to fill the space otherwise occupied by a single golf ball, or may be sized to fill one space otherwise occupied by multiple golf balls. The spacer insert 14 may be positioned anywhere and either spaced apart from other spacer inserts or arranged adjacent one or more spacer inserts.

[0013] The stack of golf balls are stable for standing upright if arranged in a truncated pyramid, such as in two layers -- the top layer having four balls and the bottom layer having eight balls with a spacer. A regular pyramid would have three layers -- the top layer being a single golf ball. However, the truncated pyramid of this invention envisions the omission of such a single golf ball so that the layer with four golf balls becomes the top layer, which gives rise to the truncation of the pyramid. The hopper 10, therefore, is truncated or , if formed as a regular pyramid, its cone apex is blocked off internally to prevent a single golf ball from entering the void otherwise defined by the interior of the cone apex.

[0014] Since the top and bottom exterior surfaces of the positioning device are substantially flat, they may be stacked one onto the other, which facilitates that storage in a more compact manner than would otherwise be the case.

[0015] While the foregoing description and drawings represent the preferred embodiments of the present invention, it will be understood that various changes and modifications may be made without departing from the spirit and scope of the present invention.